

REMARKS/ARGUMENTS

The action relies on the 802.16dm/D6 standard. All the citations from 802.16m/D6 are related to link initialization/status monitoring/maintenance, but there is no “cooperation” or “coordination” between the mechanisms managed/controlled at the ABS and AMS, or said another way, there are two separate timers running, one at ABS for coverage loss detection, the other at AMS for periodic ranging, but both are for link status monitoring/maintenance.

What is not shown or described in the standard is monitoring, reporting, and managing the air link status in a cooperative way between the two parties of the air link, e.g., ABS and AMS. Specifically, the standard does not teach or suggest at least “wherein during coverage loss detection, a periodic timer for periodic ranging is reset using an AAI-RNG-ACK signal on a condition that the BS confirms that the SS is still connected to the BS” and the other coordination steps in claim 5.

As recited in the claims there is built-in coordination between coverage loss detection scheme and periodic ranging scheme, which may result in certain advantages like enhancements to the current coverage loss detection mechanism, including: using dedicated periodic ranging opportunities when periodic ranging is needed in the coverage detection process; using enhanced periodic channel with which the AMS’s STID information is embedded in the periodic ranging request; providing unsolicited unicast UL allocation to the AMS to send its identification

information right after a successful periodic ranging; and the ABS may send a unicast unsolicited RNG-ACK so that the AMS may reset its periodic ranging timer upon a successful receiving UL data in the coverage detection.

Moreover, the claimed method may provide enhancements to the periodic ranging mechanism including: using a periodic ranging timer at the ABS side; and resetting the AMS's periodic ranging timer when it has done a successful UL transmission

Finally, the claimed invention may provide mechanisms to handle the interleaving between the air link status monitoring/management and the pre-scheduled AMS absence intervals, e.g., during scanning intervals, during sleep intervals, or during HO procedures, etc.

If the examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this application, the examiner is invited to contact the undersigned by telephone at the examiner's convenience.

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In view of the foregoing amendments and remarks, applicants respectfully submit that the present application, including the pending claims, is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

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Enclosure